

## A rare cause of gastric malignancy: Burkitt's lymphoma

A 33-year-old man presented with a 1-week history of nausea, vomiting, and abdominal distension. Initial laboratory tests were significant for white blood cell count ( $12 \times 10^9/L$ ), creatinine (1.4 mg/dL), and lactic acid dehydrogenase (2014 U/L). Computed tomography scan showed severe thickening of the gastric body, ascites, and peritoneal induration (● Fig. 1a). Based on these findings the patient underwent esophagogastroduodenoscopy, which revealed diffusely ulcerated mucosa involving the majority of the gastric body (● Fig. 1b). Endoscopic ultrasound (EUS) demonstrated gastric wall thickening of up to 50 mm (● Fig. 1c). Mucosal biopsies and fine-needle aspiration (FNA) of the gastric wall were performed. Epstein-Barr virus and HIV serology were negative, whereas *Helicobacter pylori* serology was positive.

Flow cytometry and cytologic examination of the FNA specimen demonstrated monotonous atypical CD10-positive B-cells with immunohistochemical stains positive for BCL-6 and C-MYC (● Fig. 1d–f) consistent with a diagnosis of Burkitt's lymphoma. Chemotherapy was initiated with the R-CHOP regimen as well as *H. pylori* eradication therapy.

Burkitt's lymphoma is a rare cause of B-cell non-Hodgkin lymphoma with an aggressive clinical course. Its sporadic

variant frequently presents as extranodal disease with the gastrointestinal tract being the leading site. The terminal ileum has been reported as the most common site of gastrointestinal involvement [1]. Patients with gastrointestinal Burkitt's lymphoma may present with abdominal pain and distension, bleeding or intestinal obstruction. Endoscopy and EUS with FNA are the most important modalities to confirm the diagnosis. In comparison with mucosa-associated lymphoid tissue lymphomas, there are only isolated reports showing Burkitt's lymphoma remission after *H. pylori* eradication [2]. Patients with Burkitt's lymphoma localized to the stomach have better survival than those with non-gastric involvement [3]. Burkitt's lymphoma of the stomach is rare and can be difficult to diagnose. It should be considered as a differential diagnosis when gastric wall thickening is found on imaging. EUS has an increasingly recognized role in the timely diagnosis of this condition.

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**Iliana Doycheva<sup>1,2</sup>, Stacy Tanner<sup>2</sup>, Delu Zhou<sup>3</sup>, N. Jewel Samadder<sup>1,2</sup>**

<sup>1</sup> Department of Gastroenterology, Huntsman Cancer Institute and University of Utah, Salt Lake City, Utah, USA

<sup>2</sup> Department of Internal Medicine, Huntsman Cancer Institute and University of Utah, Salt Lake City, Utah, USA

<sup>3</sup> Department of Pathology, Huntsman Cancer Institute and University of Utah, Salt Lake City, Utah, USA

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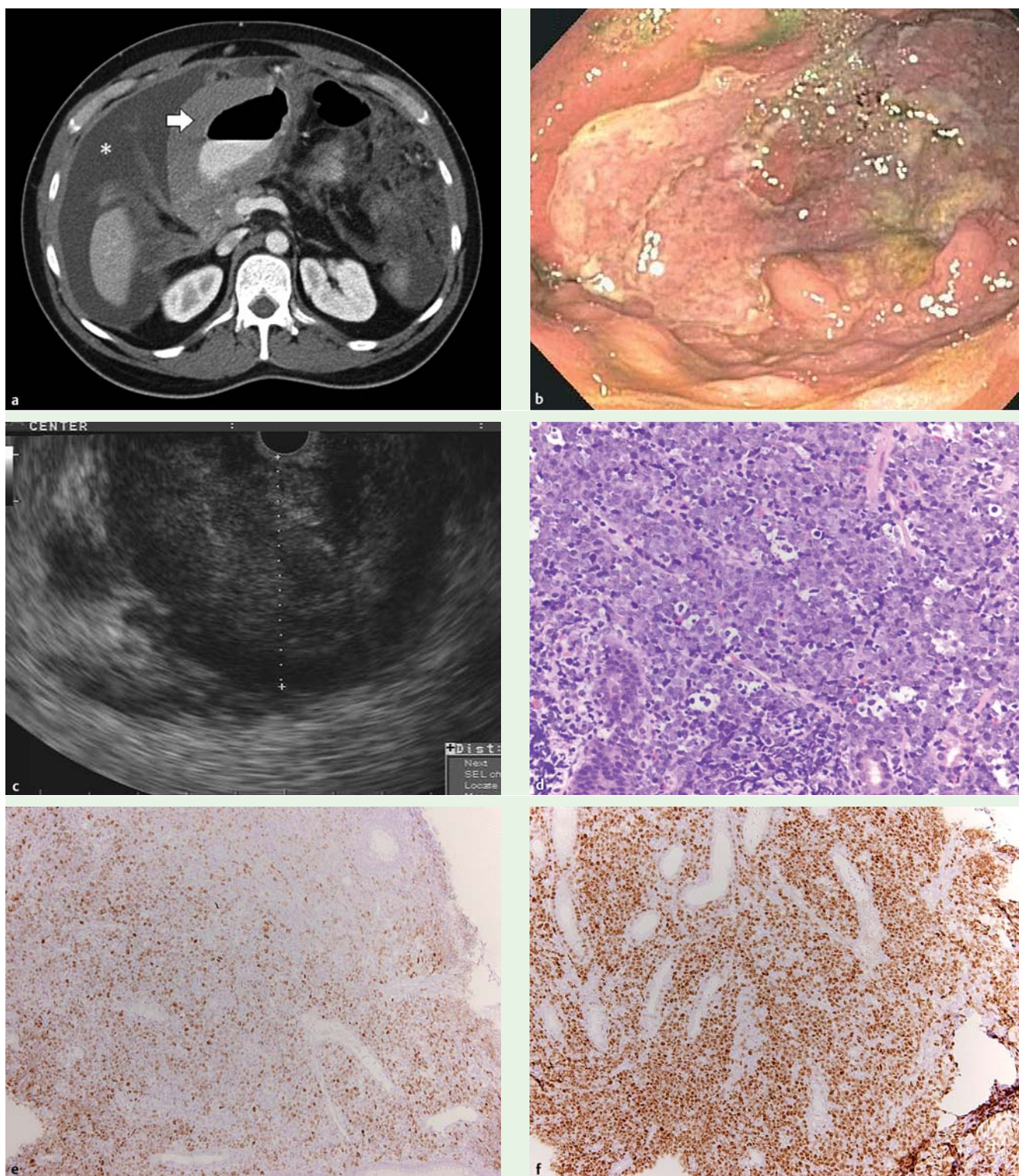
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### Corresponding author

**N. Jewel Samadder, MD, MSC**  
Huntsman Cancer Institute  
2000 Circle of Hope  
Salt Lake City  
UT 84112  
USA  
Fax: +1-801-581-7476  
[jewel.samadder@hsc.utah.edu](mailto:jewel.samadder@hsc.utah.edu)

● Fig. 1 a–f See following page.



**Fig. 1** Investigations in a patient with Burkitt's lymphoma. **a** Computed tomography scan findings of gastric wall thickening (arrow) and ascites (asterisk). **b** Esophagogastroduodenoscopy findings of ulcerated mucosa in the gastric body and antrum. **c** Endosonographic findings of thickened gas-

tric wall. **d–f** Histologic features of Burkitt's lymphoma – diffuse proliferation of monotonous lymphocytic cells in the lamina propria of the gastric mucosa with irregular nuclei and abundant mitotic figures (**d**), and stain positive for BCL-6 (**e**) and C-MYC (**f**).